

Claims

1. A method for supporting the quality of service in packet data transmission in a radio network, whereby transmission over the air interface is  
5 in radio flows, the method comprising:

selecting a radio flow having appropriate quality of service characteristics for the packet to be transmitted over the air interface from a selection of predefined default radio flows having different quality of service characteristics.

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2. A method as claimed in claim 1, wherein selecting the radio flow comprises providing the packet to be transmitted with a radio flow identifier selected from predefined default radio flow identifiers representative of different quality of service characteristics.

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3. A method as claimed in claim 2, further comprising mapping the packet into the identified default radio flow for transmission over the air interface.

4. A method as claimed in any preceding claim, comprising:  
20 detecting handover of a mobile communications device having an active connection from one radio subnetwork to another;  
performing default radio flow selection for the active connection in response to handover detection.

- 25 5. A method as claimed in any preceding claim, further comprising:  
monitoring packets to be transmitted over the air interface to detect IP flows;  
switching a detected IP flow to a dedicated radio flow having corresponding quality of service characteristics.

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6. A method as claimed in claim 5, wherein switching the detected IP flow to a dedicated radio flow comprises:

providing the packets of a detected IP flow with an identifier of the dedicated radio flow; and

5 mapping the packets of the detected IP flow into the identified dedicated radio flow for transmission over the air interface.

7. A radio access system for supporting the quality of service in data  
10 packet transmission over the air interface, the system comprising:

a selection of predefined default radio flows having different quality of service characteristics; and

means for selecting a radio flow having appropriate quality of service characteristics for the packet to be transmitted over the air interface from the  
15 selection.

8. A system as claimed in claim 7, wherein the radio flow selecting means comprises:

means for providing the packet to be transmitted with a radio flow  
20 identifier selected from identifiers corresponding to the predefined default radio flows.

9. A system as claimed in claim 8, further comprising means for mapping the packet into the identified default radio flow for transmission over the air  
25 interface.

10. A system as claimed in any of claims 7 to 9, further comprising means for detecting handover of a mobile communications device having an active connection from one radio subnetwork to another; and wherein the selection

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means selects a default radio flow for the active connection in response to handover detection.

11. A system as claimed in any of claims 7 to 10, further comprising:

5 means for monitoring packets to be transmitted over the air interface to detect IP flows;

means for switching a detected IP flow to a dedicated radio flow having corresponding quality of service characteristics.

10 12. A system as claimed in claim 11, wherein the switching means comprises:

means for providing the packets of a detected IP flow with an identifier of the dedicated radio flow; and

15 means for mapping the packets of the detected IP flow into the identified dedicated radio flow for transmission over the air interface.

13. A communication device for use in a system which supports the quality of service in data packet transmission over the air interface and comprises a selection of predefined default radio flows having different quality of service  
20 characteristics, wherein the device is arranged to select a default radio flow having appropriate quality of service characteristics for the packet to be transmitted over the air interface from the selection.

14. A device as claimed in claim 13, which is a mobile communication  
25 device or a mobile router.

15. A device as claimed in claim 13 or 14, for use in a system as claimed in any of claims 7 to 12.

16. A method for supporting the quality of service in packet data transmission in a radio network, whereby transmission over the air interface is based on packet scheduling, the method comprising:

5 selecting a radio scheduling queue having appropriate quality of service characteristics for the packet to be transmitted over the air interface from a selection of default radio scheduling queues having different quality of service characteristics.

17. A method as claimed in claim 16, wherein the radio scheduling queues  
10 may be either aggregated in the air interface or identified separately in the air interface with the aid of queue or connection specific radio flow identifiers.

18. A radio access system for supporting the quality of service in data packet transmission over the air interface, the system comprising:

15 a selection of default radio scheduling queues having different quality of service characteristics; and

means for selecting a radio scheduling queue having appropriate quality of service characteristics for the packet to be transmitted over the air interface from the selection.

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19. A communication device for use in a system which supports the quality of service in data packet transmission over the air interface and comprises a selection of default radio scheduling queues having different quality of service characteristics, wherein the device is arranged to select a default radio  
25 scheduling queue having appropriate quality of service characteristics for the packet to be transmitted over the air interface from the selection.